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ABSTRACT

This document is an overview of the problems that confront both librarians and library users in accessing materials in two-year library collections. It includes a brief discussion of library collection management concerns and issues, then focuses on the formulation of an evaluation strategy, its methods, findings, and results. The math collection of the Robert E. Eiche Library was evaluated through a physical inventory and a comparison of the results to holdings information in the online catalog, to the book by Lynn A. Steen, "Library Recommendations for Undergraduate Mathematics," and to holdings of other Penn State libraries. A list of books identified as primary sources was compiled to use as a basis for future purchasing. It was discovered that: (1) 23 titles in the stacks which were not originally on the online catalog were added; (2) 10 titles were identified as missing; (3) 11 titles listed in the online catalog did not appear in the shelf list, indicating the need to update the records; (4) 98 titles were withdrawn from the collection; (5) 25% of the core titles listed in Steen's guide are held by the Robert E. Eiche Library; and (6) 100 titles were submitted for possible purchase. It is concluded that access to materials can be enhanced by techniques of collection management: checking the actual use of materials can provide insight into patron use of materials. Collection evaluation helps to ensure that users and librarians are able to identify and use materials in the collection. (MAS)

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SUBJECT ACCESS FOR STUDENTS AND FACULTY IN A TWO-YEAR COLLEGE LIBRARY MATH COLLECTION

by Mila C. Su

ED 381 175

This presentation is an overview of the problems that confront both librarians and library users in accessing materials in two-year library collections. This overview includes a brief discussion of library collection management concerns and issues; then it focuses on a formulation of an evaluation strategy, the methods, the findings, and the results.

When one is looking for resources in libraries, the tendency is to look for a subject area and then to browse the nearby titles. Some two-year colleges' libraries maintain the Dewey Decimal System, while other libraries use the Library of Congress Classification System. There are differences between the two: Dewey is a numerical system that allows one to browse a general subject area easily and L. C. is an alpha-numeric system that identifies subject specific areas. Working in a library that uses LC means that materials related to a particular subject can be spread throughout the collection. (For example: mathematical history and mathematical philosophy and related concepts such as logic can be found in a variety of call number areas, such as philosophy, education, and, of course, mathematics.)

With many libraries switching from card catalogs to On-line or electronic catalogs, the "new" technology provides alternate searching capabilities that were not possible with the card catalog. Directly cross-referencing to other assigned subject headings can lead to titles that might have been previously missed. Of course, access can also be affected if the titles are missed in the transfer from paper to electronic resource. The condition of the collection, both physical and content wise, can be affected by several factors besides the

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actual use. These factors include the number of professional staff available for collection management, collection management policy, budget, and curriculum.

It is helpful for any librarian to have some type of collection management policy for the library that discusses the philosophy of collection development. Collection development is a broad term that incorporates the identification and acquisition (or purchase) of materials, the person (s) who is responsible for these activities; and the level of the collection, that is who is the main audience these materials are being purchased for. Other activities include weeding (that is identifying material for removal from the collection), withdrawal procedures, budget distribution of the purchase of materials, and the curriculum as the base that drives the collection.

Collection evaluation includes reviewing the existing collection for the number of resources, the types and coverage of materials, and the physical condition of materials in the stacks. Core lists, which are lists of recommended titles for various subject areas, and other related subject bibliographies are used to determine what materials need to be added, weeded, or updated. When librarians decide to evaluate materials, they find that most of the information on techniques and strategies is geared to four-year colleges' and universities' collections. Although there are common philosophies in collection evaluation between the two groups, the audience and needs are much different. Not having many of these two-year resources available makes collection evaluation in a two-year setting a challenge for librarians. When a librarian in a two-year institution decides to upgrade the library collection, the difficulty experienced in trying to identify materials to purchase and add to the collection becomes apparent.

Using "the New technology" may be one of the ways to reduce some of the issues related to this problem. The Internet provides access to various library catalogs all over the world as well as various files and directories and other types of information. This access has been embraced by many users including librarians. Technological access through resources such as other library catalogs can become one of the ways librarians in these situations could use to identify materials. Certainly finding relevant bibliographies would be an additional asset. This method allows a certain flexibility regarding the level of inquiry one wants to use. Just being able to compare one or two catalogs will be a benefit. With this slight digression, let me proceed to what I did with our math collection.

As an experiment, I decided to evaluate the math collection of the Robert E. Eiche Library. I should mention that although we have an online catalog, circulation still uses a manual system, so all of the information would be generated by hand. I did a physical examination of the collection which allowed me to see the actual conditions of the materials as well as identify the use of the items. I then considered what procedures would be useful in evaluating what materials would need to be weeded, added, and updated. The status of the math collection was ascertained through a combination of techniques that included an inventory, checking the existing titles on the shelves against our holdings in LIAS, (LIAS is the name of Penn State's on-line catalog), and reviewing a core list for mathematics.

Description of methods used:

1. A physical inventory was the first step taken. The call letter ranges of QA-QC were reviewed. The call numbers of the books on the shelf were written down on the weeding form with notes for possible withdrawal or updating of materials. The date due slip in each book was checked to determine rate of use.

2. The compiled list was then compared to the holdings on LIAS. This procedure was done in reverse (that is, using the shelf command on LIAS, (the shelf command displays titles in call number order as if one were in the stacks looking at the books) typing in the call #, then comparing the titles written down from the shelf to what was listed in LIAS). This physical comparison against a record's list revealed titles with problems, such as appearing in LIAS and not the shelf, or, on the shelf, but not in LIAS. These titles were then checked against the shelf list (a master catalog of library holdings) to determine the problem and to decide which steps would be taken (i.e. withdrawals, update, or add to LIAS).

3. The holdings were then compared to Lynn A. Steen's Library Recommendations for Undergraduate Mathematics, which provides a listing of recommended titles ranging from core level (essential) to supplemental titles. This resource allowed for holdings to be identified by level of necessity in consideration of weeding or retaining each item.

4. A list of books indicated as primary sources with some secondary consideration was written up for purchase. As an additional comparison, Steen's Library Recommendations for Two-Year Colleges was used to see if there were differences in the titles suggested in each source.

5. Lastly, titles and certain subject headings were compared to the holdings of the other Penn State Campuses.

Results of the examination :

In the stack to LIAS comparison:

There were 23 titles in the stacks that were added to the LIAS holdings,

There were ten titles that were identified as missing from the collection,

There were eleven titles listed in LIAS but not in the shelf list, which meant the LIAS records needed to be updated.

Finally, 98 titles were withdrawn from the collection.

Of the titles that are held by the Robert E. Eiche Library, 25% of the core titles listed in Steen's books were in the stacks.

In comparing the two Steen sources, 57 titles in the Undergraduate listing were not in agreement of importance with the listing and ratings in the Two-Year Recommendations. Because of this, an additional 35 titles from the two-year listing were included in the submission list.

100 titles were submitted to the Head Librarian for consideration to add to the collection.

The development of this technique was useful in identifying the use of the collection and documenting the areas that needed to be updated or to provide additional sources in the subject area. I was surprised to find a higher usage of books in logic, history of mathematics, teaching mathematics, general mathematics, calculus, algebra, and philosophy than I originally anticipated.

Another advantage provided by the online catalog was a way of completing the majority of work at the reference desk. Because the size of the collection was specifically limited,

the actual physical inventory took approximately six hours away from the reference desk. This is an important aspect because of the time constrains many librarians experience.

It became clear that even though there were titles that were not listed in LIAS, they still circulated, which indicated patrons browsed the area looking for additional resources. Using the on-line catalog while cross referencing the inventory list provided a method for updating the holdings, identifying related subject headings that could be checked for additional titles, and comparing other Penn State campus (and for that matter, even other university collections) holdings in consideration of other titles. This is a collection development technique that is useful. Faculty and administrators also might find searching other collections useful in identifying materials that might be of interest to them.

The issue of core list titles, that is, titles that every library should have, is a problem that librarians in two-year programs deal with all the time. Unfortunately, since there are few resources specific for these types of collections and since some of the books that contain recommended lists do not provide rankings of the resources as to what are the most important titles, these librarians are confronted with making decisions based on a variety of techniques. Using their catalog to check their holdings against other institutions with similar programs is a very useful procedure for librarians. And now with the new technology and access, incorporating this method has become more feasible. It helps when the librarians can get their faculty and patrons to let them know when additional materials need to be purchased, or when there is a change in the curriculum, or new titles are brought to their attention. It also helps if the professional organization or associations in that subject area have lists of titles recommended for libraries. The Steen book is a

good example of this because it was sponsored by the Mathematical Association of America.

In conclusion, access to materials can be enhanced by techniques of collection management. Checking the actual use of the materials, whether manually or with an automated system, can provide some insight to how the collection is actually used. Collection evaluation helps ensure that the users and librarians are able to identify and use materials in the collection.

I hope that this review of the various techniques I've used to evaluate this collection provides a method that can help others who are in a similar situation. I also hope this discussion helps generate some interest in working on access issues in library collections.

Presented at the Pennsylvania Association of Two-Year Colleges in Pittsburgh, PA, April 7, 1994.

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_____ Two-Year College Mathematics Library Recommendations. Washington, DC: Mathematical Association of America, 1992

WEEDING PROJECT

Call Number	Withdraw	Update	Notes	Initals

Weeding Project

Call Number	Withdraw	Update	Notes	Initals
QA3. N48 Newman World of mathematics (Core)	?		Is this fabulous? CLASSIC	
QA5. G623 1984 (Ref)				
QA5. I5 Ref				
QA5. J32 1968 Ref		✓		
QA5. P38 1991 Ref			good to keep	
QA5. P7 Ref			Keep	
QA7. H3 (Core)			Keep -	
QA7. S3 ?	✓			
QA9. A1A4 1974	✓	✓	Algebra/logic	
QA9. C63 1955	✓		Common sense, Ext Science	
QA9. D2 1939 listed (no *)	?		the Logic of Science	
QA9. E9 1965 ?	✓	?	Foundations fundamentals concepts of math	
QA9. H25 1954 (Core)			keep / take	
QA9. K38	✓		Astronomy & music	
QA9. K677 listed (no *)			philosophy of math Kasner	
QA9. K678	✓	✓	logic & algebra in college	
QA9. L47		✓	logic & boolean Algebra	
QA9. R8 (2*)			Intro to math Logic Revised.	
QA9. T28 1946	✓		Tarski, intro logic	
QA9. W47 (2*)	✓			
QA9. 8. H63 1980 (Core)		✓	Classic	
QA11. B33 ?	✓	✓	learning to teach Secondary Math	
QA11. B63 1989 (1*)				
QA11. C673		✓	How children learn math	
QA11. P6 1971 (Core)				
QA11. T348 1982		✓		
QA11. T67 1978 (listed no *)		✓	? Classic / Math Anxiety	
QA13. K62 (?)				
QA21. B42 (listed no *	?	✓	?	
QA21. B6 (1*)				

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